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BLENDING ALPHA-SEEKING, FACTOR AND INDEXING STRATEGIES: A NEW FRAMEWORK (PART ONE)

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Blending alpha-seeking and index products has become more challenging as the number of indices has increased and factor strategies have emerged to replicate what was previously alpha. We present a framework that helps investors look past product labels, determine a better blend of return sources to meet their individual needs and maximise the efficiency of a portfolio's risk budget – a priority in a low-return environment.

Summary

- It's time for investors to stop thinking in 'active versus passive' terms. Every investment decision is an active one, including the use of indexing strategies and defining a portfolio's strategic asset allocation. The real question is how best to blend alpha-seeking, broad market and factor strategies. This decision should be taken at the initial design stage of portfolio construction and include views on factors and alpha, we believe.

- Active returns – those that can be earned beyond a portfolio benchmark – cut across asset class boundaries. As a result, a holistic portfolio perspective is needed. This implies there is no one-size-fits-all answer to key portfolio construction questions: The answer will depend on an investor's objectives and constraints.
- Investors need to assess what mix of return sources they are buying to properly identify alpha opportunities, see the broader portfolio impact and evaluate costs. A portion of active return is tied to static exposures to factors – macro and style factors – that can be acquired in a cost-efficient way with factor strategies. Alpha, in our view, is the return an investment manager can deliver beyond the factor exposures.
- We confirm the results from academic literature: The average alpha-seeking manager does not deliver alpha net of fees. We want to document what alpha looks like and focus on top-quartile managers because alpha generally is a zero-sum game: one manager's gain is another's loss.



The quote

The blending decision requires a more holistic perspective because the drivers of portfolio returns cut across asset classes.

- Our empirical work shows why it is important to have visibility into sources of return. We identify varying alpha opportunities across asset classes. We believe investors can be deceived by looking at active returns alone and need to uncover the factor exposures embedded in them. Investors can then decide whether to maintain the factor exposures or correct for them. Our work clarifies the returns being bought across the portfolio and maximises the efficiency of the risk budget – a priority in a low-return environment.
- What matters are returns net of costs. Product fees cut into returns and can reduce or, in some cases, eliminate the alpha an investor receives. Yet these fees vary widely and change over time. Governance costs – those required to find and manage alpha-seeking managers – are also a key consideration. Because costs are negotiable and client specific, our framework for blending alpha and index looks at returns and costs separately.
- To build better portfolios, investors should look at alpha opportunities, including tactical asset allocation, that go beyond specific asset classes, in our view. The blend of alpha-seeking managers with indexing and factor strategies can be constructed to deliver the desired mix of broad market and factor exposures – and as cost-effectively as possible.
- We illustrate how alpha and factor adjustments can improve the risk and return profile of a portfolio through a series of examples.

Every decision is an active one

We believe it's time for investors to stop thinking in 'active versus passive' terms. Every investment decision is an active one, including the use of indexing strategies and defining a portfolio's strategic asset allocation. The decisions to blend different return sources should begin at the first stages of setting up an investment programme and include views on factors and alpha, we believe. The standard portfolio construction practice of making allocations within asset class silos can cause investors to stray unintentionally from their risk and return objec-

tives. The solution: better understanding and blending all sources of returns.

The blending decision requires a more holistic perspective because the drivers of portfolio returns cut across asset classes. This calls for a new framework for strategic asset allocation (SAA). Our new framework encompasses investors' strategic allocation to broad market exposures – the beta SAA – and the allocation to active returns, or those returns beyond the beta SAA. The broad market exposures will usually explain the vast majority of an investor's total returns. We are looking at how best to blend indexing strategies with factor and alpha-seeking strategies. Our focus is on active returns – those earned beyond a benchmark.

We build on BlackRock's portfolio construction and factor research (Grinold and Kahn 2000, Ang 2014) and the accumulated insights from academic literature. Finding alpha – the returns a manager delivers beyond market and factor-driven returns – is an important step. A portion of returns is due to persistent tilts to factors – the broad drivers of returns within and across all asset classes. This includes some of what was considered alpha in the past: A vast array of indices now allow investors to more cheaply tilt to sectors, regions and factors. Our work helps identify alpha opportunities while also uncovering the factor exposures of alpha-seeking managers. The investor can then decide whether to keep the factor exposures or adjust them to maintain the SAA. This clarifies the returns being bought across the portfolio and allows the investor to maximise the efficiency of the risk budget, or the budget allocated to earning active returns – a bigger priority in a low-return environment.

Cost is an important part of this holistic portfolio view. Investors only care about risk-adjusted return net of cost. Yet product fees are not set in stone: They are negotiable, change over time and vary greatly across different investors, making it hard to generalise. For these reasons, our framework looks at performance gross of fees. Yet cost also goes beyond product fees. Governance costs include the time and effort to monitor alpha-seeking managers: the constant search, selection, performance assessment and reselection. These can even become opportunity costs for investors who spend a lot of time overseeing alpha-seeking decisions without earning much alpha in

Figure 1. A new framework

Portfolio construction blending alpha-seeking, factor and indexing strategies



Source: BlackRock Investment Institute, July 2018. Notes: This graphic depicts BlackRock's view of how to best blend alpha and indexing strategies in a portfolio. It is for illustrative purposes only.

return. Because costs can change and are client specific, our framework for blending alpha and index looks at returns and cost separately. We do not consider manager fees in assessing alpha opportunities across asset classes, but apply an estimated management fee in the portfolio construction examples beginning on page 11. The examples show how fees can reduce or eliminate how much alpha an investor receives.

We show our framework below and flesh it out on page 9. It embodies a holistic approach to SAA decisions. We split the portfolio construction process into two phases: design and implementation. We believe the design phase should determine the mix of returns – index, factors, alpha and overall costs – that will set the target SAA and help achieve an investor’s specific objectives. In the implementation phase, the portfolio is built from products and strategies to reflect the target SAA. An asset-class by asset-class approach to alpha cannot achieve this because the exposures to individual managers can push the net exposures away from the target mix of market and factor returns as well as lead to an inefficient use of the alpha risk budget. Incorporating alpha-seeking managers means an investor needs to understand how managers generate returns via factors and alpha.

A factor-aware portfolio

The understanding of returns within the investment landscape has evolved over the years. Most of the returns in any SAA stem from swings in broad market indices. Factors are the latest evolution in the understanding of return drivers. Exposure to factors can offer returns that straddle both indexing and alpha-seeking strategies: Factors are the broad, persistent drivers of returns that can be captured in a systematic and cost-efficient manner through indexing or factor strategies. Factors clearly need to be integrated into any investment framework, we believe.

Factors are the latest chapter in how perceptions of alpha have progressed over the years. A few decades ago, alpha and total returns were seen as the same. But the insights of academia have gradually permeated investment practice. In the 1990s and 2000s, William Sharpe and others changed the view of alpha. The idea of alpha as

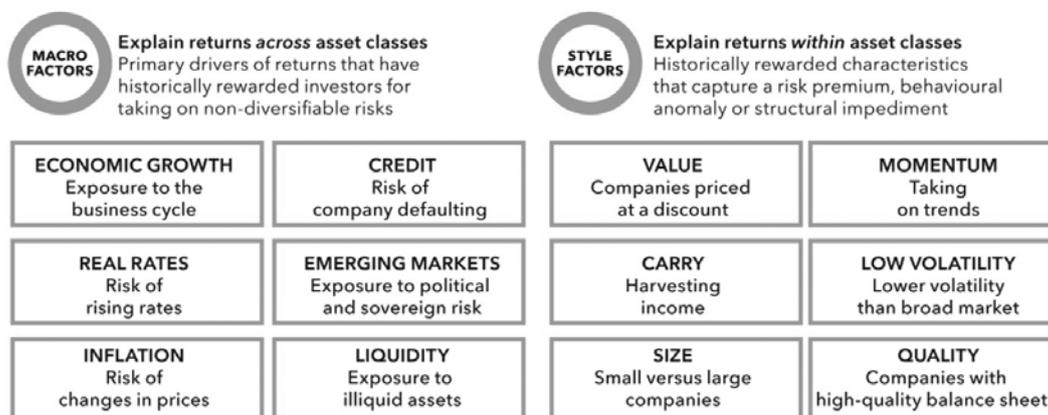
the return earned beyond beta – the return of the broad market – gained prominence and widespread adoption. Beta was something different – and could be achieved through low-cost index products. This view evolved further in the 2000s and 2010s as factors started to be adopted and turned into investable strategies. Academics and investors have historically demonstrated that active returns over a benchmark can be achieved with persistent tilts to factors (see Ross 1976, Basu 1977, Rosenberg et al. 1985, Fama and French 1993). Historically, these factor returns were bundled within indexing and active strategies and could not be accessed as separate return components. Yet in the last decade, the exchange traded fund (ETF) world has seen a proliferation of new indices based on factors. Broad index and factor returns can often be accessed using relatively low-cost index products.

At BlackRock, we focus on two major factor groupings: macro and style. Macro factors offer returns across asset classes and describe movements of whole markets. We recognise six distinct macro factors: economic growth, real rates, inflation, credit, emerging markets and liquidity. Style factors offer returns within asset classes, capturing the relative movements of securities within markets. Style factors stem from a risk premium, structural impediment or behavioural bias. We also recognise six style factors: value, momentum, carry, low volatility, quality and size. See the ‘understanding factors’ chart for short definitions of each. These factor returns are often driven by different phenomena and can be cyclical in nature: For example, the momentum style factor typically performs well during expansions while the quality style factor tends to do better during slowdowns and recessions.

The bulk of a portfolio’s returns will stem from macro and style factors. That is why indexing solutions are so core to portfolio construction, in our view. Factor insights are a key component of our holistic portfolio view and framework. Portfolios that may look diversified from an asset class perspective may be less diversified than investors think: Risk is often concentrated in a few macro factors. Our bottom line: Investors need to know how factors are affecting their portfolio.

Figure 2. Understanding factors

BlackRock’s definitions of macro and style factors



Source: BlackRock Investment Institute, July 2018. Notes: This graphic shows BlackRock’s definitions of macro and style factors. It is for illustrative purposes only.

What is alpha?

Our framework is based on better understanding return sources. This requires an awareness of whether returns are coming from the broad market or factor exposures – and clarity on where alpha opportunities might exist. Seeking alpha ultimately comes down to security selection within an asset class, tactical asset allocation (TAA) across asset classes, and timing broad market and factor moves.

Alpha needs to be distinguished from active returns. Active returns are driven in part by static exposures to factors. Alpha, by our definition, is the return above static factor exposures that cannot be replicated through broad market or factor indices. Yet we also find some static factor exposures in active returns are not currently represented by indices. This underscores the role factor-driven returns play in some asset classes. Existing factor indices, for example, may not fully represent the style exposures managers can capture in fixed income.

We aim to gauge this factor-driven return by introducing the concept of common alpha – alpha that is common across managers and could reflect systematic strategies not yet captured by existing indices. Common alpha could also reflect factor-driven returns not fully captured through index definitions, or a manager's nuanced use of factor strategies. We treat common alpha as part of alpha for the blending of returns. See the dark blue circle in the 'classifying returns' graphic. Yet common alpha could be another chapter in alpha's evolution: It may morph into new factors and indices in the future. The active return that cannot be attributed to broad market, factor exposures or common alpha is what we call pure alpha. See the light blue circles in the graphic. Pure alpha is driven by investment skill and commands a higher price for that reason. If you can uncover pure alpha, it makes a meaningful difference to a portfolio's performance.

Our work shows average alpha returns are near zero and negative net of fees. This is consistent with William Sharpe's well-known paper from 1991 that showed active managers, overall, achieve near zero active returns – so net returns are negative after accounting for costs. An investor needs to maintain top-performing managers over time, otherwise alpha will be elusive. Our work also suggests that

individual managers rarely stay in the top quartile. Since alpha performance is not persistent, investors need to have the ability to consistently pick top managers. We believe it is reasonable to assume that investors in alpha-seeking funds expect above-average performance and should focus on how best to blend such returns with others in the portfolio. For these reasons, our analysis of alpha is based on the returns to be expected from top-performing alpha-seeking managers.

Separating factor returns

We now tease out factors from active returns. We separate active returns using the Morningstar database of historic returns for about 4,500 managers across 21 asset classes in public markets. We use MSCI indices for equity style factors and market benchmark indices as a proxy for macro factors across asset classes. Factors assessed are those that make up the typical SAA. We first separate the parts of active returns that are due to factors from alpha. We then identify common and pure alpha. See the 'explaining active return variance' chart.

Alpha is a meaningful source of active return fluctuation across asset classes – positive or negative. Factor returns also play an important role in how alpha-seeking managers produce active returns. For example, factors explain about half of active return fluctuations in the global credit and US aggregate fixed income indices but only a small portion of those in US inflation-indexed securities (TIPS). Asset classes are ranked by the active return variance explained by factors. See the green bars below. We also find that some factor tilts are persistent and can hold over multi-year periods – even decades.

This breakdown of active returns and our empirical work on alpha are important pillars of our framework, allowing us to answer two key questions: how to allocate the risk budget to alpha – common and pure alpha combined – and how to account for the factor influence on the target SAA. This is just one piece of information needed to understand the genuine alpha opportunities within asset classes. We also need to look at risk-adjusted alpha and alpha itself with a view on fees. We will explore these other parts of the alpha story in the next pages.

Figure 3. Classifying returns

BlackRock's taxonomy of returns

	RETURN DRIVERS				
	FACTORS		ALPHA		
	BROAD MARKET	STYLE & MACRO	COMMON ALPHA	MARKET & FACTOR TIMING	SECURITY SELECTION
INDEX/ETF	✓	✓	✗	✓ (self-generated)	✗
FACTOR	✓	✓	✓	✓	✗
ALPHA-SEEKING	✓	✓	✓	✓	✓

Source: BlackRock Investment Institute, July 2018. Notes: This box shows different sources of return and whether they can be currently acquired with an indexing, factor or alpha-seeking strategy. 'Self-generated' refers to alpha investors can generate themselves using index/ETF products.

Finding alpha

Alpha exists in every asset class and can provide diversification: Alpha is uncorrelated across asset classes, we find, and has little impact on overall portfolio risk. This means there is a case for choosing an alpha-seeking product everywhere – at least before considering fees. Yet risk-adjusted alpha varies widely across asset classes. Our work informs decisions on choosing alpha by looking at top-quartile managers – the natural place to describe alpha because there is no average alpha. Private markets are excluded from this analysis.

The ‘picking your spots’ chart shows the information ratios (IRs) for alpha (blue) and active returns (dark grey) based on the performance of top-quartile managers over a 20-year period. The results are gross of fees: We are looking for true alpha skill, and we apply investor-specific fees in our examples. We find notable differences between the mostly higher alpha IRs and active IRs. Active returns give an incorrect picture and can lead an investor to spend the budget dedicated to alpha inappropriately and inefficiently. For example, the euro credit active IR looks appealing but could lead an investor to prefer more of that asset class than might otherwise be desired in the context of the alpha IR.

Other results should be intuitive. Small cap equity managers generate higher IRs than large cap managers, consistent with the

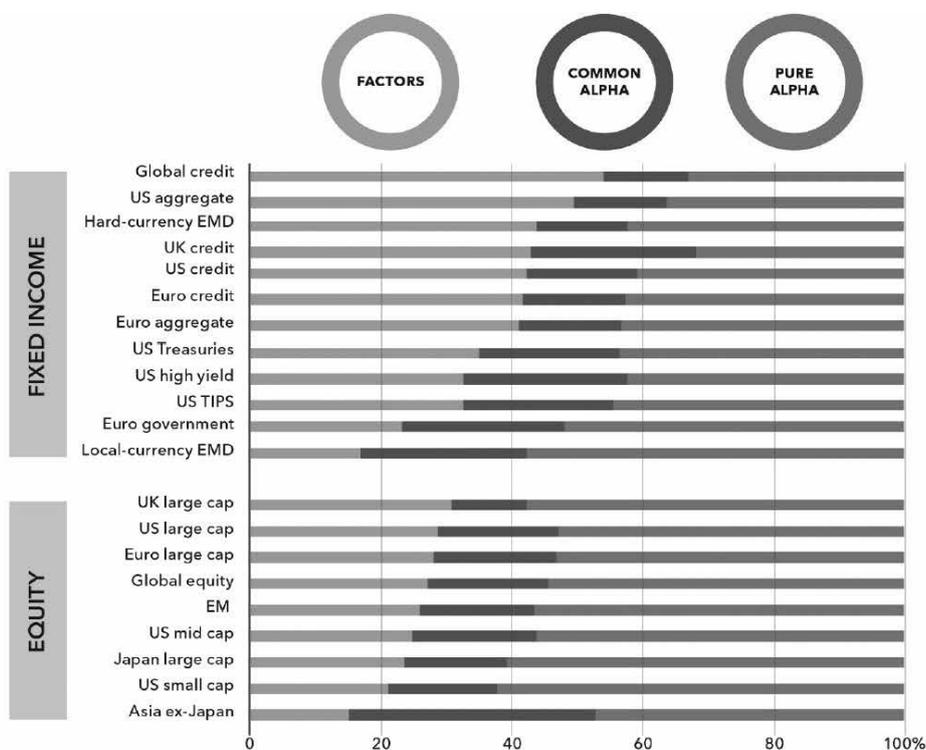
view that small caps are less researched and offer more alpha opportunities. Most fixed income active IRs are lower than our alpha IRs: Factors can play a big role in the active returns of fixed income managers, especially high yield. We have a few takeaways. First, decent alpha can be found in all asset classes and multi-asset strategies. Second, these alpha IRs help inform the target SAA and budget allocation to alpha. Again, we believe investors should not jump to conclusions about alpha based on our results alone. We still need more information to assess the relative attractiveness of alpha across asset classes – especially on fees and the risk capital constraints that can limit the extractable alpha from our IRs. The confidence bands help show where uncertainty in our estimates is greater.

Alpha depends on risk-taking

The information ratio is only part of the alpha picture: In practice, the alpha opportunities suggested by our alpha IRs might not be achievable – on top of accounting for costs. Most investors face limits on how much capital they can devote to managers to reach an alpha return target. Returns and manager fees are based on the share of capital invested alike, affecting the net alpha earned. Even with high alpha IRs, an investor may not be able to earn targeted alpha levels if alpha risk-taking is too low.

Figure 4. Explaining active return variance

Annualised average active return variance of all managers across asset classes, 2012-2017

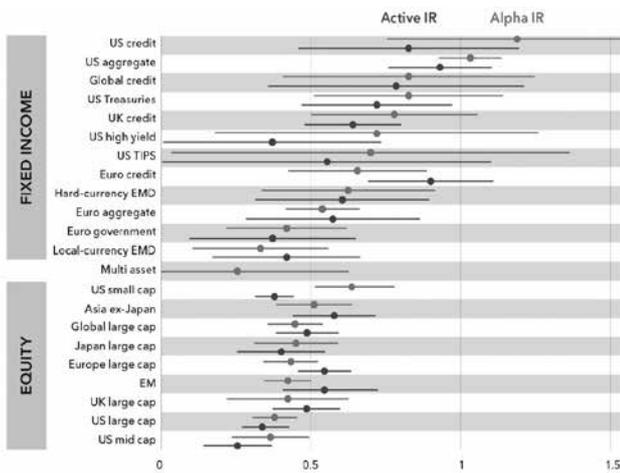


The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results.

Sources: BlackRock Investment Institute, with data from Morningstar, MSCI, Bloomberg Barclays, JPMorgan, FTSE, S&P, IBBox and Thomson Reuters, July 2018. Notes: The chart breaks active return variance into factors, common alpha and alpha as explained above. All returns throughout are in US dollars.

Figure 5. Picking your spots

Annualised IRs of top-quartile managers, gross of fees, with confidence bands, 1997-2017



The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results

Sources: BlackRock Investment Institute, with data from Morningstar, MSCI, Bloomberg Barclays, JPMorgan, FTSE, S&P, IBBox and Thomson Reuters, July 2018. Notes: The estimate is based on active and alpha information ratios (IRs) over five-year periods between 1997 and 2017. Each five-year period begins in October of the start year and ends in September of the end year. The size of the confidence bands can reflect the sample size by asset class – smaller samples can lead to larger confidence bands. The volatility of the IR over the sample period can also lead to larger confidence bands. The IRs are gross of management fees. If fees were included, IRs to the investor would be lower.

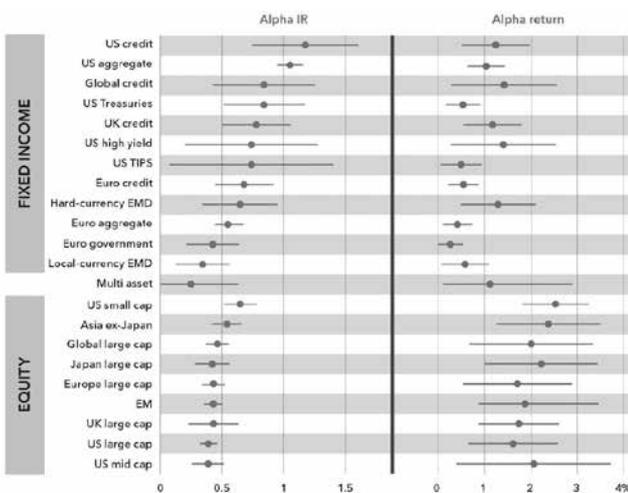
The ‘risk and return’ chart compares our alpha IRs (blue dots) and the alpha return levels (orange) for top-quartile managers across asset classes (again gross of fees). The relative rankings of different asset classes stand out. Fixed income alpha-seeking managers feature relatively high IRs but low levels of alpha – they are taking much less risk than equity managers (their asset classes are typically lower risk by nature) but earn higher returns per unit of risk.

So what? When allocating alpha, the alpha return levels also matter. An investor needing lots of alpha might allocate to a slightly less efficient market. For example, top-quartile managers in US Treasuries deliver efficient alpha – just not much of it. An investor with a higher alpha target might need to move to asset classes where manager alpha is larger but less efficient, such as emerging market (EM) debt. Of course, fees in some of these asset classes will be higher than others: EM equities usually cost more than large cap US equities. This is where assumptions on fees and governance costs come in. Our empirical work on alpha can help inform where an investor should look for expected alpha returns – these show what skilled managers might be able to deliver by asset class. This is alpha in action within our framework: first in the design phase when assumed governance costs are built into the target SAA, then in the implementation phase when individual managers and actual fees are incorporated. **FS**

Part two of this paper (released the following week) will look at their portfolio approach of focusing on the major asset classes in blending alpha-seeking, factor and indexing strategies. The framework will be detailed again and its application will be demonstrated using a fixed income portfolio as an example.

Figure 6. Risk and return

Annualised gross alpha IRs and returns of top-quartile managers with confidence bands, 1997-2017



The figures shown relate to past performance. Past performance is not a reliable indicator of current or future results

Sources: BlackRock Investment Institute, with data from Morningstar, MSCI, Bloomberg Barclays, JPMorgan, FTSE, S&P, IBBox and Thomson Reuters, July 2018. Note: The alpha IRs and returns are derived using the same methodology as on the previous page and presented in the appendix. The alpha IRs and returns are gross of management fees. If fees were included, alpha IRs and returns to the investor would be lower.